ABSTRACT OF THE DISCLOSURE

A buffer layer of aluminum nitride (AlN) about 25 nm thick is provided on a sapphire substrate. An n^+ layer of a high carrier density, which is about 4.0 μm thick and which is made of GaN doped with silicon (Si), is formed on the buffer layer. An intermediate layer of non-doped $In_xGa_{1-x}N$ ($0<x<1$) about 3000 Å thick is formed on the high carrier density n^+ layer. Then, an n-type clad layer of GaN about 250Å thick is laminated on the intermediate layer. Further, three well layers of $Ga_{0.8}In_{0.2}N$ about 30Å thick each and two barrier layers of GaN about 70Å thick each are laminated alternately on the n-type clad layer to thereby form a light-emitting layer of a structure with two multilayer quantum well (MQW) cycles.